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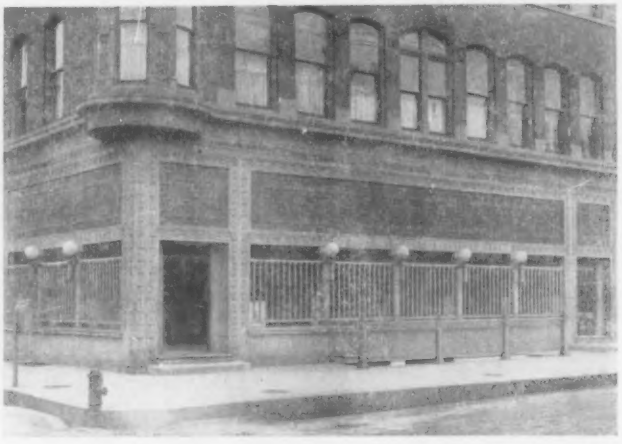
THIS ISSUE CONTAINS

THE ORGAN FROM AN ARCHITECT'S STANDPOINT—PROFESSOR REILLY ON A RATIONAL DOMESTIC TYPE—SOME FURTHER ILLUSTRATION OF RECENT WORK BY MESSRS. ALBRO & LINDEBERG

VOLUME XCVIII DECEMBER 7, 1910 NUMBER 1824



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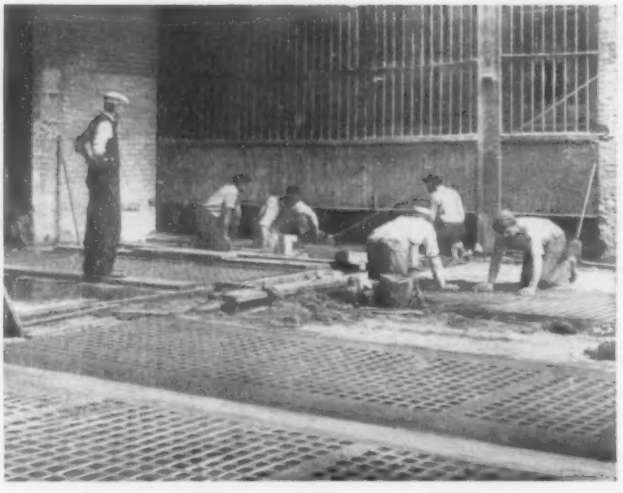

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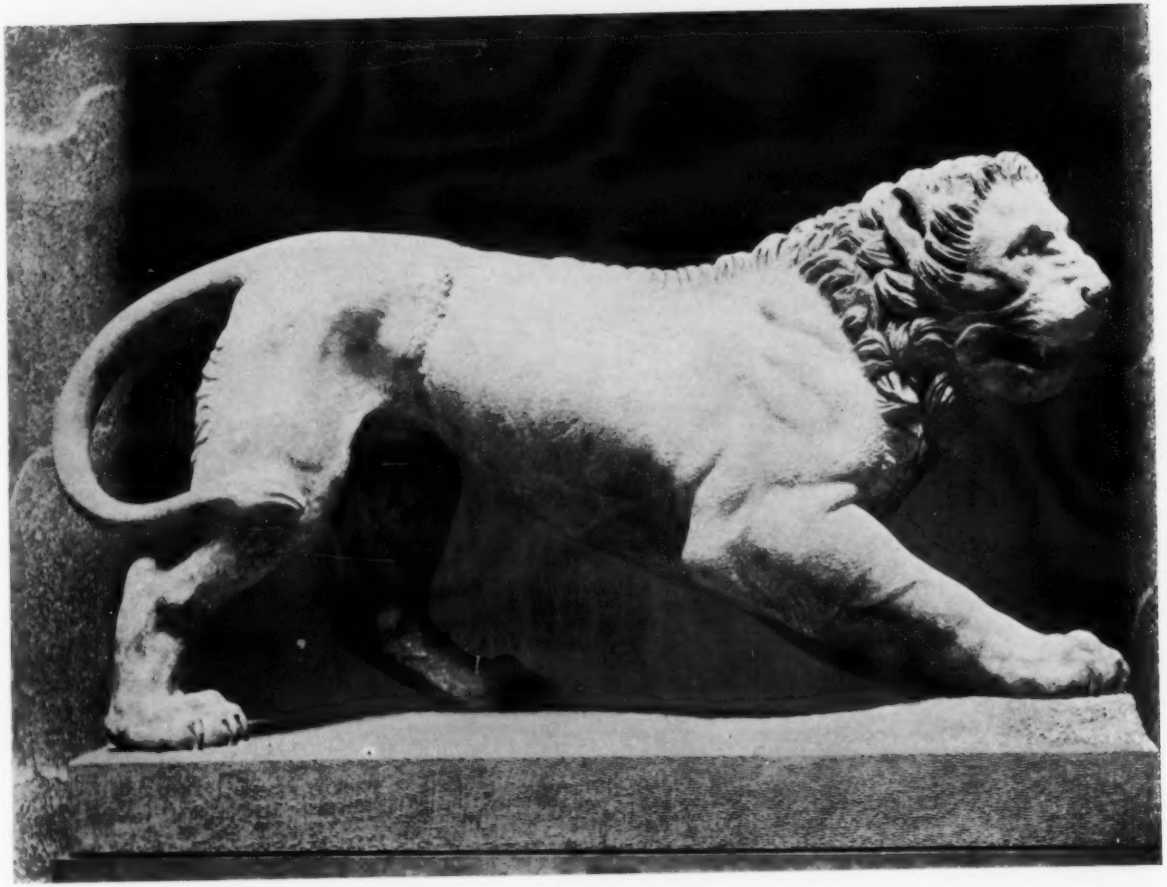

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THE AMERICAN ARCHITECT

Vol. XCVIII WEDNESDAY, DECEMBER 7, 1910 No. 1824

THE ORGAN FROM THE ARCHITECT'S STANDPOINT—Part I

By ARTHUR WHEATON CONGDON, A.A.I.A.

THE bulk of the church organ makes it the most conspicuous article of furniture in any room where it is placed (Fig. 1), and the fact that its size makes it a fixed part of the interior at once suggests its use as a part of the design. The organ builder is generally a resourceful man, and more than once has made up for the architect's lack of foresight by his ingenuity; but no architect likes to depend on emergency measures. It is the purpose of this article to consider the organ in relation to the design of the building, leaving details of construction to some of the well-known textbooks on the subject.

An organ that is to be placed in a large church would naturally be designed by its builder mainly for the support of chorus singing, while that in a concert room or residence would be mostly used as a solo instrument in which great power would seldom be required. All details of construction, determining the manner of placing the organ in the building, are the same, differing only with the bulk of the instrument.

The instrument that we know as "an organ" is really a combination of several instruments which may be played separately or in various combinations. In the first place, every organ has the main subdivisions that show as separate banks of keys. One of these is intended to be played by the feet, and is therefore called the "pedal" organ; the others, played by the hands, and hence called "manuals," are known as the choir, swell, great, solo and echo organs, each having its own manual. A very small organ may have but one manual, while a large one may have three or four manuals, or banks of keys. The pedal and manual keyboards are grouped together with the stop-knobs and other mechanical devices, as will be explained later, the whole being known as the "console." This may be attached to the organ and form a part of the case, or it may be detached and even in a remote part of the building, connected to the organ by electricity or otherwise (Fig. 2).

Each manual has its own set of stops, as has the pedal organ. Each set of stops represents a complete musical instrument, the scale generally corresponding to the keys, and being as complete in itself as is a pianoforte, with the exception that the number of notes on an organ keyboard is less, the pedal keyboard including only thirty-two notes, and the manuals generally sixty-one. Each stop that is drawn on a particular keyboard will sound on that keyboard, and if several stops are drawn several notes will sound for each key that is depressed; moreover, by means of the "couplers," the different keyboards may be connected, and not only at unison pitch, but also at an octave above or below, so that the pressure of one finger may be made to sound a great many different pipes.

The different departments of the organ may be placed together or, in the case of a large building, may be divided, so that the echo organ may be in the roof or other remote position; and the rest of

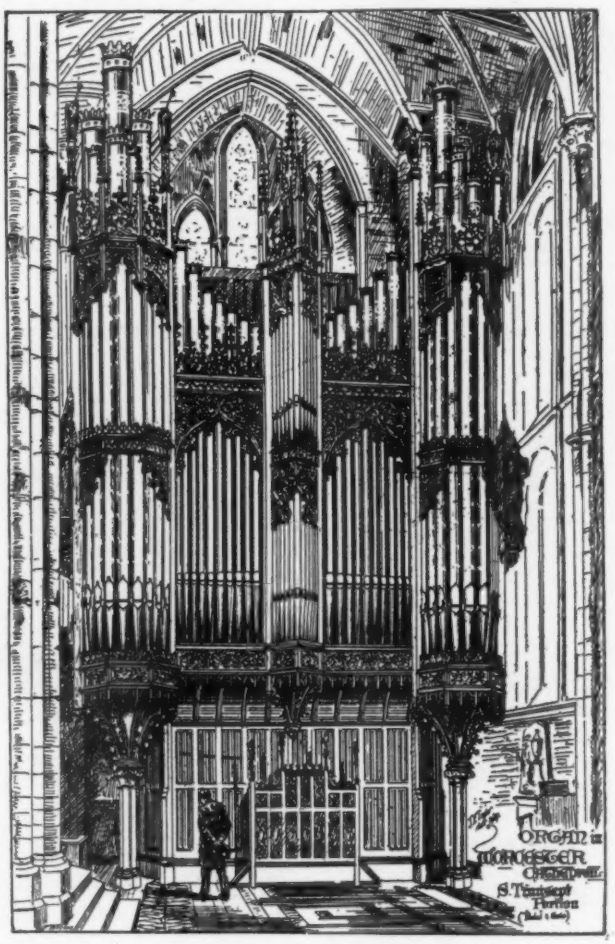

FIG. 1. ORGAN IN SOUTH TRANSEPT, WORCESTER (ENG.) CATHEDRAL

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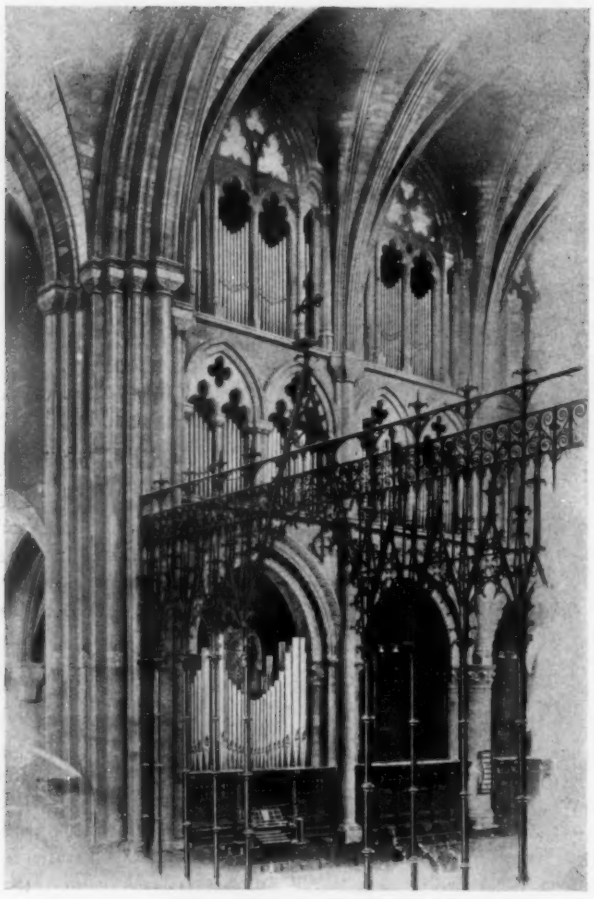

FIG. 2. ORGAN IN ALL SAINTS' CATHEDRAL, ALBANY, NEW YORK

the instrument may be further divided and placed on opposite sides of the stage or chancel, or a part may be at each end of the auditorium. This makes a variety of effects possible to the skilled performer, and also makes the instrument more flexible as a decorative feature; but such divisions should be made with considerable discretion owing to the number of pitfalls for the unwary. It is obvious that for unity of musical effect the parts of the instrument should not be too widely scattered, and if it is to be used to accompany singing, great care should be taken that the placing of these divisions of the instrument does not affect their value adversely for purposes of accompaniment.

There is a certain church in which a very fine and costly organ has been spoiled for practical use by its unwise division; part of it is placed very low down, close to the choir and directly back of the organist; and part of it has been placed in a gallery in the other end of the church. The result is that the portion close to the organist screams in his ears so that he cannot hear his choir, while the part placed in the gallery is so distant that the choir cannot hear it above the uproar of their own singing; and the organist can never hear both parts of his instrument at once when playing them together. Fig. 3 shows an organ that is well divided, a part being on each side of the choir.

The division of the organ and the placing of the console are dependent in large measure on the kind of action used, whether electric, pneumatic, or the old tracker action. The architect must have some idea of which is to be used, and should be in a position to advise intelligently between them.

The "action" of the organ is the device which transmits the pressure of the finger on the key to the pipe and causes it to speak; it has no reference to the motive power for the bellows or blower, as is supposed by some persons. Thus an electric organ may be blown by hand, or a tracker action instrument blown by electric power. Tracker action, the oldest and simplest of all, takes its name from the trackers, which are strips of wood connecting the levers of the keyboard at one end, and the organ-pipe valve at the other. Its merit is that it is positive and dependable, and seldom gets out of order even when neglected, and when broken is easily repaired by any mechanic. Its fault is that in large organs it makes the touch extremely heavy, so that the organist labors, rather than plays: this is particularly true when the manuals are coupled together.

Another fault is that the console must always be close to the organ, and is generally attached thereto. This makes it awkward if the organ is to be placed in a music hall where on occasions an orchestra or a chorus is to be accommodated. Tracker action is in common use, however, for small organs, particularly if they are to be placed in remote villages where a proper mechanic can be obtained only once a year.

The next development in organ action was the tubular pneumatic. In this the impulse is taken from key to pipe by means of compressed air, through leaden tubes filled with air under a slight pressure which is increased by the pressure of the key on a little bellows. This form of action is better than the old tracker, as it is so much lighter in touch even when the whole organ is coupled together; and it is also free from the defect of a possible partial opening of the valve by a touch lacking in positiveness, which is apt to give a false note. It permits the console to be detached and at some distance from the organ, but in a fixed position. This

FIG. 3. A DIVIDED ORGAN

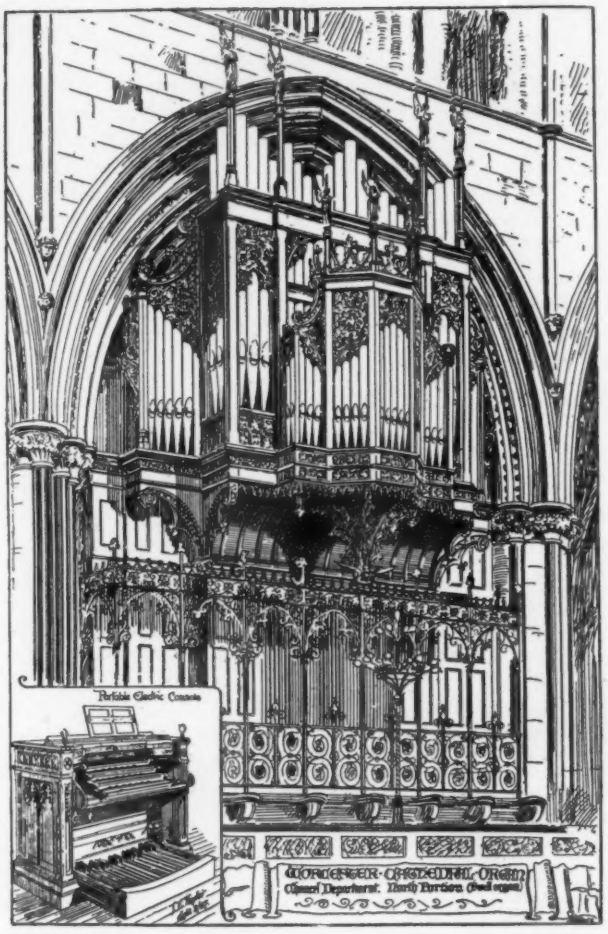

FIG. 4. ORGAN IN WORCESTER CATHEDRAL

distance should not be over about thirty feet, as the compressibility of air will make the action slow at a greater distance. The action is a durable one, as the only things to wear out are the rubber connections of the valves with the metal tubes, and when in need of repairs is not difficult to mend.

The electric action is the most recent development, and is, indeed, not yet standardized. In it the impulse is taken from key to pipe by means of an electric current of low voltage, the pressure of the key making a contact, and the current energizing an electro-magnet in the organ, which in turn operates the pneumatic valve at the pipe. It is, therefore, sometimes called "electro-pneumatic" action. Owing to the vagaries of electricity it is less dependable than either of the foregoing actions, because if anything does go wrong a skilled mechanic is required to locate the trouble. Each day sees improvements in it, however, and as the knowledge of electricity becomes more widespread this form of action will probably become universal, even for small instruments. It is, of course, instantaneously quick, so that the console may be placed at any distance from the organ permitted by the slow rate of travel of sound; and as the necessary connection need only be by a slender flexible cable the console may be freely movable. Owing to the great ease with which the electricity can be controlled, much more variety of mechanical device may be designed; and an electric console may have a bewildering array of more or less helpful devices which, if intelligently used, make musical effects possible that cannot be attained with any other form of action.

In all three forms of action composition pedals or pistons are provided by which a number of stops may be drawn by one motion on any manual; but in the electric action this may be further amplified by making the same piston draw a combination of stops on the manual, alone, or add to it the proper pedal stops by pressing the piston or key harder; and a "suitable bass" key may be provided, after pressing which any change in stops made by hand will automatically make the suitable changes in the pedal registration. This is almost a mechanical brain. Another arrangement makes it possible to draw a stop on a manual other than its own.

If the action may be likened to the nervous system, the blowing apparatus is obviously the lungs of the organ. The early organs were blown by a bellows like that used by the smith in his forge. As this does not give a steady wind pressure, a wind reservoir was made, fed by one or more bellows or "feeders." The modern organ, with its varied resources, calls for more wind, and in response to this demand blowing apparatus of a special type has been developed, in which the requisite air pressure is maintained by a rotary fan

FIG. 5. ORGAN IN THE PROTESTANT CATHEDRAL, BERLIN

usually direct-connected to an electric motor. This motor takes its current from the street mains, and is therefore generally of an alternating-current type. Such motors are apt to make a humming or buzzing sound while running, and as the fan or blower may do likewise, the whole apparatus should be enclosed in a sound-proof room and placed at as great a distance from the audience as possible. The wind-trunk, which conveys the air to the organ, should also be provided with a suitable check-valve and flexible sleeve so as to prevent transmission of the sound along the air-current or through the metal of the pipe. The architect should take care with the placing of these blower sets that they should be able to take in and deliver air to the organ that is free from dirt or dust, and is at about the same temperature as the air of the auditorium. This is necessary in order to keep the organ pipes in tune as well as to avoid chilling the auditorium or filling it with foul or musty air; and as the amount of air passing through the pipes of a large organ in the course of an hour's recital is very considerable, it is obviously a matter for serious attention.

The rotary fan or blower is only possible where electric power is available; in more remote places and with smaller organs the blowing apparatus used is a bellows, or reservoir with feeders, worked in the familiar manner of pumping up and down, or if there are three feeders, they may be operated by a wheel and crank-shaft. Both methods are largely used, the former being necessary only when a reciprocal-action water-motor is the source of power. Water power applied in this manner is generally reliable, but the architect should make sure that ample supply and waste pipes are provided; a 3-manual organ will require a 2-inch supply pipe at the usual city pressure. Care should also be taken that the motor-room is made sufficiently accessible so that the motor valves may be packed and otherwise attended to at regular intervals; otherwise, the grit may cut the metal parts and make costly repairs necessary. The motor room should also be protected against freezing.

It is better always to have some form of power to operate the bellows. If a man or boy has to be depended on he is seldom available at the time when the organist wants to practise, and is particularly liable to the failings of the flesh when he is most needed.

(To be continued)

A RECENT LEGAL DECISION

PROVISIONS OF CONTRACT IGNORED BY BOTH PARTIES

A written contract for the remodeling of a theatre building provided that claims for allowance for delays caused by the fault of the owners should be presented within 48 hours, or they would not be allowed; that no alterations from the plans and specifications should be made except upon the written order of the architects fixing the amount due thereon, and that no extras should be furnished except upon similar orders. These provisions were ignored by the parties. If changes or extras were desired they were ordered verbally and the work was done. In these circumstances it was held that the provisions would also be ignored by the courts. Campbell v. Kimball, Supreme Court of Nebraska, 127 N. W. 142.

A Rational Domestic Type

"If suppression of individual idiosyncrasies for the general good may be taken as the keynote of our new garden suburbs, and I think there is not much doubt about it, do the houses which are already being built in them properly express this idea? While admitting very readily that they are a long way ahead of the surrounding villadom, is it entirely appropriate that they should in the main be based upon the early mediæval type of cottage, with high-pitched roof and gables, with wood mullion windows (stone being, I suppose, too expensive), rather than on the later Georgian types, with flatter roofs and sash windows, which are found so sedately set round many an English village green, and so largely contributing to its sober, restful character? On practical grounds alone one would have thought that the greater window space, the squared ceiled rooms clear from the roof, would have been more satisfactory, while the simpler shapes would have allowed for a higher standard of interior proportion and detail. But this is really part of the general question of the trend of our recent domestic architecture, which must be grasped and understood if we are to make deliberate progress. Our garden-suburb cottages are, especially at Hampstead, very good of their kind. The question to my mind is whether they, any more than our domestic architecture as a whole, are right in kind, whether they adequately express the best contemporary culture. And if they do not do this, how can they serve for any length of time the culture that is to come? It is, therefore, worth while to consider shortly what we have been attempting to do of recent years in house building. Since the Gothic Revival finally broke our Classic tradition two main ideas seem to have inspired our house architects: one, simple picturesqueness of outline derived from Gothic architecture, and the other, more difficult to define, might perhaps be termed an attempt to express domesticity. Feeling that the latter is our national characteristic, we have striven, and I think with a certain amount of success, to make our houses what we call and feel to be "homelike." For this purpose we have naturally and rightly shunned any excess of external ornaments and dressings, and we have interested ourselves in texture and color, in materials which weather well and quickly lose their sense of newness. But these are accidentals of architecture rather than the essentials. To further the supposed ideal of the home we have indulged in a rough and affected simplicity of finish, making use of such archaic things as solid oak steps in our staircases and bare bricks or tiles in our fireplaces. But our Gothic inheritance of picturesqueness has prevented our desire for simplicity from taking the form of simple rooms simply put together. It has, instead, tempted us to all sorts of angular shapes and bay windows, so that our rooms, if rustic in materials and workmanship, have no real simplicity of form. So far, therefore, this striving after simplicity, this exaltation of the primitive cottage, is an affectation. If, then, the house of the future suburb is on the one hand to express something of the new submission of the individual to the community, and on the other hand to answer to a more exacting and refined if less sentimental taste, it is obvious

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SUBURBAN ARCHITECTURE

PROFESSOR REILLY, of the Liverpool School of Architecture, has uttered, in a recent address, a note of caution regarding suburban house design. This, we believe, to be wisely put. On another page will be found an abstract of the point of view taken by the speaker, which is commended to the attention of those engaged in professional work of that character.

A MUNICIPAL BLUNDER

THE City of London proposes to build a new bridge to be known as St. Paul's, with approaches starting from the immediate neighborhood of the Cathedral. With a fatuity which seems singular as an aftermath of the recent International Conference in London the city fathers have not only ignored the position of the Cathedral in preparing their plans, but have refused to listen to the protest of the Royal Institute of British Architects on this point, and have gone so far as to advertise for bids on their original scheme. It is most gratifying to note that the Institute proposes to carry its appeal to Parliament and will oppose to the utmost of its powers the granting of an enabling act.

A NEGLECTED OPPORTUNITY

PROBABLY no logical exception can be taken to the statement that the new Pennsylvania station now open in New York is a direct contribution by private capital to the city's assets.

Setting aside, for the moment, the high architectural excellence of this station, and regarding it merely as a utility, the saving of time and the great convenience to the millions of people who yearly use this vast terminal, is very considerable. Naturally an enterprise of this kind promoted by private capital is largely influenced by its income earning power. But it would not be wise to ignore the fact that while serving the ends of private enterprise, it also provides a convenience and creates a center in the municipality, around which gather utilities that marks a city's growth and attractiveness.

It may seem a reiteration of the many comments that have appeared in the daily and technical press to refer to the supine and indifferent attitude of the city government and its lack of co-operation in the improvement of this locality. What might have been cheaply done if undertaken at the outset, now, owing to the natural enhancement of real estate values is almost impossible. We refer to the creation of a plaza or approach on Seventh avenue, fronting the station. Even at this early day the congestion is something that taxes all the efficiency of the traffic squad, and now that the station is in full operation the problem of handling vehicular and pedestrian traffic is a most serious one. We referred recently in these columns to the necessity of impressing on individuals how important it is to conservate our architectural resources. Small hope is there for any reforms in this direction when our municipal authorities fail in so important an instance to realize the duty that lies before them.

THE ARCHITECT AND THE CRAFTSMAN

AN English architect who recently visited America states in an article printed in an American architectural journal that he finds much to commend in our domestic architecture. He believes our greatest shortcoming to be lack of co-operation between the architect and the craftsman, and that our best efforts are often marred by their indifferent execution.

It is with pleasure we record an expression of opinion by a foreign contemporary architect in which we so thoroughly concur. Admitting these conditions in America, we believe it is also true that they are beginning to be noticeable in England. The failure of labor to discriminate as to the relative ability of its members is, in the opinion of many, the cause of this defect in our completed buildings.

The architect finds that he must in many cases abide by the workman's interpretation of his specifications and accept as a compliance with them results that he knows are an indifferent realization of what he attempted to describe and strongly desired. To insist upon the discharge from the work of men whose ability he questions would probably invite a "strike," and to urge any change in handling of materials incur expense and many objections by his builder.

It is thought that for these reasons, more than any others, such a wide difference has been noted between the promise of some excellent designs and the performance represented by the finished building. We have many times referred to the urgent need of artisans in the building trades. Without them there seems little hope of improvement in quality of work executed, but how they are to be produced under present labor conditions is not exactly clear. Perhaps we are passing through a stage in our building development, that on account of haste and necessity for large volume, encourages the growth of unhealthy conditions. If this is true, a return to the earlier ideals among workmen is desired and appears necessary to satisfactory progress in the building art.

(*Continued from page 188*)

some new departure must be made. I fancy in our desire for more reticent exteriors we should revert to flatter roofs with fewer gables, and seek our interest in such delicacies as trellis porches and verandas, and windows carefully divided with thinner bars and marginal lights pointing to a higher standard of interior finish. Expression is most naturally given to such a house by a large swept-out cornice, adding interest and shadow to what otherwise might seem a bald reserve. With regard to the central portion of the city of the immediate future, its administrative and business centres, it is probable that these parts will tend in their architectural character to become more and more cosmopolitan. Already a block of offices, a large hotel or club, may be designed in Paris for London, or *vice versa*. Some of the most recent and best French and American architecture is to be seen in our own streets, which assimilate it easily and well. But this only means that each nation is seeking its inspirations at the same classic source. The simple elements of classical planning allow for all possible monumental effects, and in the future we may believe they will be increasingly employed. With this taking place, and with the civil architecture of all towns becoming more cosmopolitan in character, we shall find the tendency to revert to bygone combinations of classic forms less and less frequent. To erect to-day a pure Georgian or Wren building in the central portion of a town is to effect an anachronism only less glaring than to put up a François Premier, Elizabethan, or Gothic building. Color has a special importance, for if the buildings and streets in all big towns are approximating to a common ideal there must nevertheless always be a local and sympathetic color arising from the nature of the site, of the atmosphere, and of the materials available. To introduce red bricks and tiles into an essentially grey town like Edinburgh, or into a white town like Paris, is to do an injury to the whole, which the town as a whole should resent. Against such intrusions, therefore, the town should protect itself. A further and similar function in the immediate future will be for the town to protect and cherish the architectural character of its different parts."—From Professor Reilly's paper on "The City of the Future" read at the recent London Conference on Town Planning. *The Architectural Review.*

Architects' Specifications

At a recent meeting of the Liverpool Architectural Society Mr. James Parkinson, a contractor, read a paper on "Specifications from a Contractor's Point of View," which is written with so much good sense that it seems worth while to reprint a few paragraphs of it here for the consideration of those American architects who still allow some of the old-time clauses to remain in their specifications.

A specification is always preceded by a number of conditions, pains and penalties, making the contractor responsible for every conceivable act or damage to property or life. With the majority of these conditions I agree, as it tends to make the careless contractor more careful regarding the scaffolding, etc. There are some clauses, I think, which require leaving out and others inserted in their place. First is that of the architect appointing himself the arbitrator as to the full meaning of the specification and drawings, which is binding on all parties without appeal. This, to my mind, is not fair between man and man, and deprives one of their rights to sue, and is contrary to common reason.

Second, a clause reading: "No compensation will be made to the contractor for any losses or increased outlay they may incur arising from errors in the said drawings and specification." Also another on the same: "If any portion of the work, reasonably and obviously to be inferred as necessary, shall not be expressly described, either in the quantities or on the drawings, the contractor shall execute the same in a satisfactory manner without any extra charge on the amount of estimate."

I think enough responsibility is placed on the contractor in being responsible for damage to property and life without being made responsible for the architect's and surveyor's mistakes and omissions in the drawings and quantities, with which he has had nothing whatever to do, except to have a casual glance at the drawings. I think every one should bear their own mistakes without trying to saddle others with them, and these clauses should be removed.

In place of the above conditions a clause should be inserted regarding the final payment. As a rule, we are kept an unreasonably long time for the settlement. I would recommend a clause something like the following: "The accounts to be gone into and the final certificate granted within two months after the account is rendered, or 5 per cent. interest paid on the balance." I have been kept six to nine months when there was no reason why it should not be certified in a week or two. * * *

Another matter I wish to bring before your notice is the fact, no matter what sort of a job is expected on completion, the specification never varies; the best is always specified.

Now it is an undisputed fact that Mother Nature does not produce everything of the best quality; she always varies what she produces, which we, in our wisdom, divide and classify into grades or qualities. No matter what department of nature we look into, whether the mineral, vegetable or animal kingdom, there is always good, middling and indifferent, and each have their separate value on the market, according to the grade or quality. * * *

I have often heard the remark passed when an architect has found that his specification has not been adhered to and cheaper material substituted in place of that specified, "Have we got value for our money?" Now, to be fair to all concerned, that is not the question, "Have I got value for money?" The question is, "Have I got what was specified?" If not, you should insist on having it, otherwise it is not fair to those who tendered to faithfully carry it out.

Roman Bond To-Day

In the course of an interesting presidential address before the Birmingham (Eng.) Architectural Association Mr. A. S. Dixon relates the following experiences, which show how constant are many of those building problems which are of a fundamental nature in all ages:

I have very little experience of any other masonry than brickwork; only of that most intractable, hard stone which splits up anyhow like coal and will not be cut into nice oblong pieces and straight courses. You know how they generally heap it together in Shropshire and Hereford—and, for instance, at Malvern—into rough, uncoursed walls, and sometimes with painful effort into a kind of opus reticulatum. You do not easily get a bond across the wall, and you cannot get any longitudinal or horizontal bond at all, and you are always liable to steep cracks and fissures. You can get over both difficulties by introducing every 3 feet or so string courses of two or three roofing tiles or thin bricks bonded together in cement, which not only gives you a good cross and horizontal bond, but connects the chaos of rubble with pleasant horizontal lines. Only be careful you make the tiles slope down to the outside of the wall, for if damp gets in the tiles will keep it there.

In other words a modern architect of distinction does (and quite unconscious, apparently, of such imitation) exactly as the Roman builders in similar circumstances.

AN IMPORTANT LEGAL DECISION

ARCHITECT'S CERTIFICATE INDUCED BY STRIKE HELD VOID

The plaintiff corporation entered into a contract with a real estate trust for the mason work of a building, which included exterior walls, interior partition walls, elevator wells and staircases, the contract price being $194,000. Before executing the contract the plaintiff notified the architect that it conducted its business on the open shop principle. The contract required it "to follow up the skeleton framework construction as fast as the tile arches are in and the work is made ready for him." The wall was to be started January 1, 1910. The contract contained the provision that should the contractor fail to supply a sufficiency of properly skilled workmen, or proper materials, or to prosecute the work with promptness and diligence, the owner might, on a certificate of the architect of such failure, supply such labor and materials at the contractor's expense, and might terminate the employment and take possession on the architect's certificate that such failure was ground for such action. Permission was not given the plaintiff to begin work, although frequently requested, until April 4. The conditions of access at that time were poor. The great bulk of the work upon the building was done by a fireproofing company, which had the contract for the structural steel frame. This company employed only union labor and most or all of its employees were members of the defendant unions, the Bricklayers' Union No. 3 of Boston and the Housesmiths' & Bridgemen's Union No. 7 of Boston. On April 11 the Building Trades Council of Boston ordered a strike of all members of its subordinate unions, including the defendant unions, employed on four buildings, one of which was that in question. There was no trade dispute of any kind as to wages or other conditions between the union members and their employers. Their claim was that non-union workmen and their employers engaged on the buildings were not complying with union rules respecting wages and hours of labor. The strike was general except among plaintiff's employees. On January 13, 1910, the business agent of the Boston Trades Council wrote to the owners that the plaintiff did not employ union men and requesting them to give the contract to an employer who did so. After the strike conferences were held between the parties, and as a result of these the architect resolved to give the owners a certificate of failure of performance of the contract by the plaintiff. This he did on April 21. His certificate specified that the plaintiff (1) had failed to supply a sufficiency of properly skilled workmen; (2) that the work had not been executed according to the terms of the contract; (3) that the plaintiff made no effort to remove work condemned by the architect; (4) that the plaintiff had failed in various respects to prosecute the work with promptness and diligence; (5) that the workmen employed by the plaintiff had not been sufficiently skilled. On April 22 the owners gave notice of their intention to terminate the contract. The plaintiff asked for an injunction to restrain the owners, the architect, the unions, the Building Trades Council and their officers from preventing the completion of its contract.

In granting the injunction the court (Rugg, J.) said "There was no evidence that the architect had condemned any work, or that he had even complained to the plaintiff of any lack of skill on the part of his workmen, nor any evidence upon which I am able to place reliance that there was in fact any such lack of skill or that the work had not been executed in substantial accordance with the contract. The only subject as to which there has been any discussion was the number of men and the speed with which the work progressed. The masons were of the usual skill." The court came to the conclusion that the plaintiff had substantially finished the work which it could do under its contract until other contractors were able to do more work in advance of it. It had entered into several contracts involving many thousands of dollars in reliance upon its main contract with the owners, which it might be compelled to break if not permitted to complete its contract with the owners. If that contract were broken under the circumstances shown, it would suffer injury in its trade name and reputation. It found upon all the evidence that the architect's certificate would never have been given except for the strike, and that the strike was the inducement which caused it. The plaintiff had in all material respects conformed to its contract and was prosecuting the work with reasonable diligence and the grounds stated in the certificate of the architect were pretexts and not the real motive actuating him. The court concluded that the main purpose of the combination to strike was either to compel the plaintiff to cease work on the building and hence to break its contract, or to employ members of the defendant unions exclusively, so far as members of their trade were employed. The defendants had no legal interest in the hours of labor and wages agreed upon between the plaintiff and its employees. None of them worked for the plaintiff. The results of their action as calculated to cause the breaking of the plaintiff's contract with the owners must have been foreseen and intended by the defendant labor unions.

The court therefore ruled (1) That the calling of the strike was unjustifiable and constituted an unlawful combination to injure the plaintiff; (2) That the architect's certificate was not warranted by the facts and being given solely because of the strike was not given in good faith and afforded no justification for the notice of the owners to terminate the plaintiff's employment; (3) That by their unjustifiable and illegal acts the architect and owners became a part of the illegal combination first set in motion by the other defendants; (4) That the plaintiff had ground of equitable relief against all the defendants; (5) That the architect's certificate and the owner's notice to terminate the plaintiff's employment were void.

It accordingly enjoined the defendants from combining and conspiring together (1) to force the plaintiff to employ union men and to refrain from employing non-union men in the construction of the building; (2) to break, or cause to be broken, the plaintiff's contract; (3) to interfere with the employment of any person on the building by the imposition of fines or other coercive action. It enjoined the architect from giving to the owners any certificate based on facts referred to in his certificate of April 21, 1910. And it enjoined the owners from terminating the contract in reliance on said

certificate, from taking possession of the plaintiff's property upon the building, from employing other persons to finish the work under the contract and from interfering with the plaintiff in its performance thereof in consequence of said certificate.

L. P. Soule & Son Co. v. Jeremiah Williams et al. Massachusetts Supreme Court.

Cyclopean Architecture

In a recent lecture at Edinburgh University Mr. David MacRitchie, F.S.A., the lecturer, pointed out the similarity between the "Cyclopean Structures" of Greece, Sardinia, and the Balearic Isles and the corresponding ones in Scotland of much later date. The most prominent of these were the round towers generally known as "brochs" or "doons," which approximated very closely to the *talayots* of the Balearic Isles and the *nurags* of Sardinia. The best existing specimen was the Broch of Mousa in Shetland. The peculiar features of these towers, their massive walls perforated with galleries and chambers and their well-like interior, were now familiar to many others besides antiquaries. In all respects their architecture was of the order known as "Cyclopean." Closely connected with the brochs or doons were the chambered mounds and underground galleries, the latter being akin to the *allées couvertes* of France. These show various forms of transition from the above-ground structure to the actual souterrain. An interesting comparison was made between certain underground dwellings in the Balearic Isles, in Orkney, and in the Outer Hebrides, wherein the area capable of being roofed over was considerably increased by the use of pillars and piers. In referring to the probable age of the Cyclopean structures of Scotland the lecturer deprecated the application to them of the term "prehistoric." Dr. Joseph Anderson's estimate that the brochs were likely built between the fifth and ninth centuries of their era accorded well with the Norse chronicles which ascribe such to the Picts at the time of the Norse colonization of Orkney in the ninth century. Moreover, there were three "souterrains" in the south of Scotland which had been partly built from Roman ruins, and in several instances vessels of Samian ware had been found in underground abodes of the same class. Their period was, therefore, within the Christian era, certainly in some cases, and possibly in all.—*The Builder.*

Style in Architecture

As for the cut of the architectural dress, there are advocates for many different styles, in each of which, if its champion is to be believed, the hope of architecture is only to be found. There is the new art artist, who cuts tradition and rejoices in what, to some minds, seem to be contorted forms and sinuous curves. Then, again, there is what might almost be called the no-art school, which revels in plain square forms and surfaces, texture of material, and a simplicity approaching barbarity, and which eschews moulded work as something to be abhorred. Apart from these new aspirants there are still the veterans Gothic and Classic, giving to these terms their widest meanings.

We are also told that, if we wish to achieve success in design, we must leave our ideas untrammeled by musty tradition; they should be allowed to flow forth in all the beauty of their originality; we are informed that to consult precedent and to study the works of the mighty brains of the past is really unnecessary and only likely to check our own glorious impulses. Well, I don't quite believe it, because it is not given to everyone to be a genius, and with the ordinary man, when the day of necessity comes, the brilliant idea displays the bad form of not keeping the appointment. Also it is contrary to human experience in general. Every scientist to-day is indebted to the labors of past generations and joyfully and thankfully refers to their discoveries and profits by them. A glance at the history of architecture reveals the same truth, there is no sudden springing into birth of a new and full-grown beauty, everything has been slowly evolved through a long chain of years, the links of which may be easily traced. What must not be forgotten, however, is the fact that the conditions under which we work to-day are very different from the conditions obtaining 600 years ago.

We have now to consider a multiplicity of detail, caused by the change and advance in the general mode of living, and in the needs of modern business; the old-fashioned way of entering a series of rooms, one through another, does not satisfy modern needs, neither are we content to let the lighting of an apartment be entirely subservient to the appearance of a façade, and, fortunately for the men of those more simple times, they were not troubled with modern by-laws or sanitary ventilating pipes. So there is still fair scope for originality in providing for the needs of an advanced civilization.—From presidential address of W. F. Hale, Sheffield (Eng.) Society of Architects and Engineers.

How Cities Should Grow

A city begins as a hamlet, which becomes a village, then a small town with a few large houses upon its outskirts, and a few rows of villas for the middle-class. If landlords consulted their own interests they would at this stage combine and insist upon a town-plan, covering possibly from 40 to 45 square miles of country, with all probable main lines of communication laid out and demarcated, and details forecast. The confidential plan would begin as a rough skeleton, but in the course of a few years it would assume a human interest to which every succeeding year would add. As the details of planning were settled, they might be transferred to a greater plan, open to public inspection, and in this manner each citizen would be able to select his place of residence or business with celerity and certainty and would thus become an unconscious but active agent in furthering the committee's views.—*Indian Engineering.*

Announcement

SOCIETY *of* BEAUX-ARTS ARCHITECTS

Owing to the large number of drawings received in the competition of November 29, and the consequent clerical labor involved in the preparation of the list of awards, the committee has not been able to prepare the list in time for publication in this issue.

The various illustrations of premiated designs and publication of the criticism of the jury and the list of awards is therefore postponed until issue of December 14.

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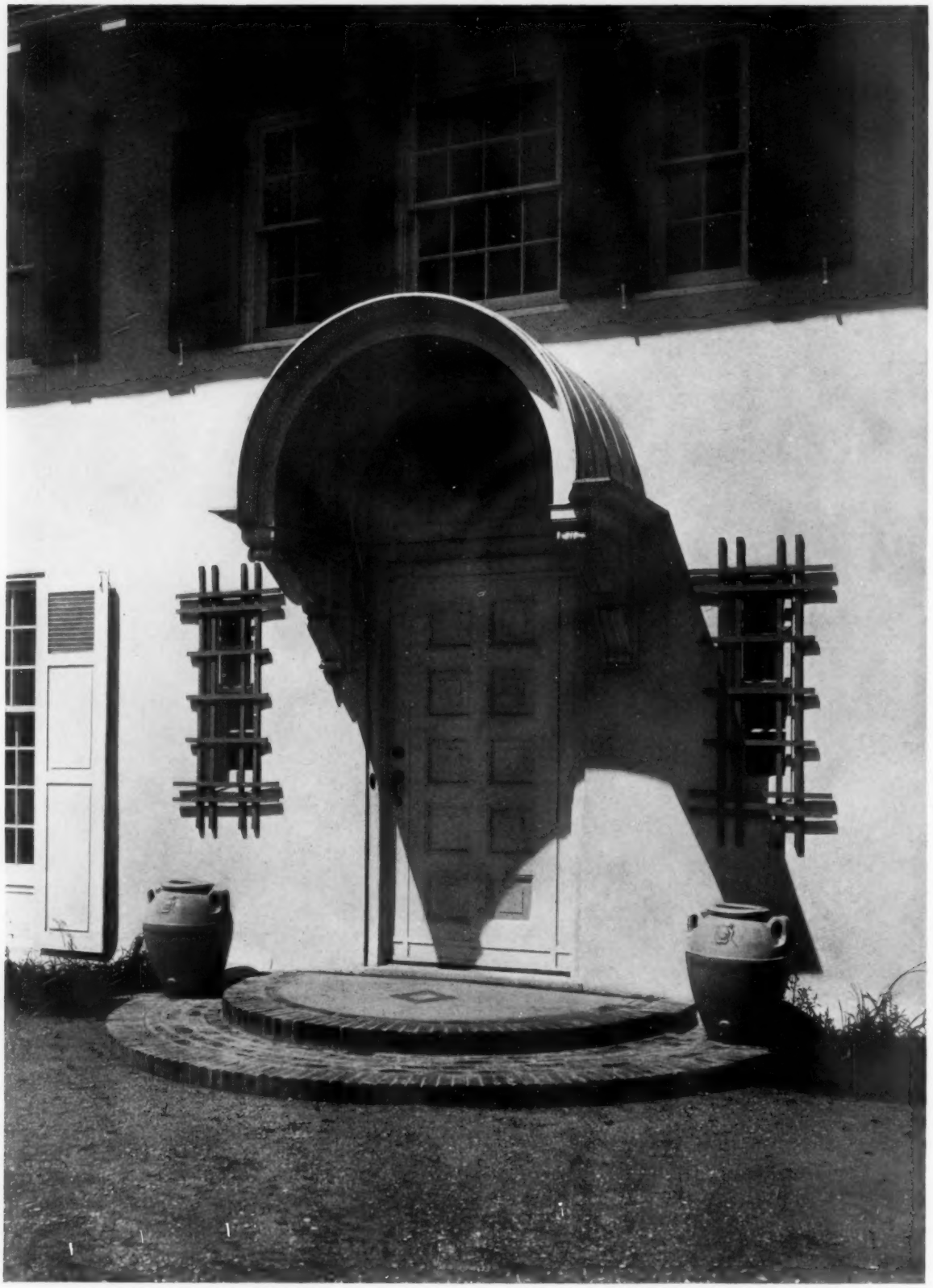

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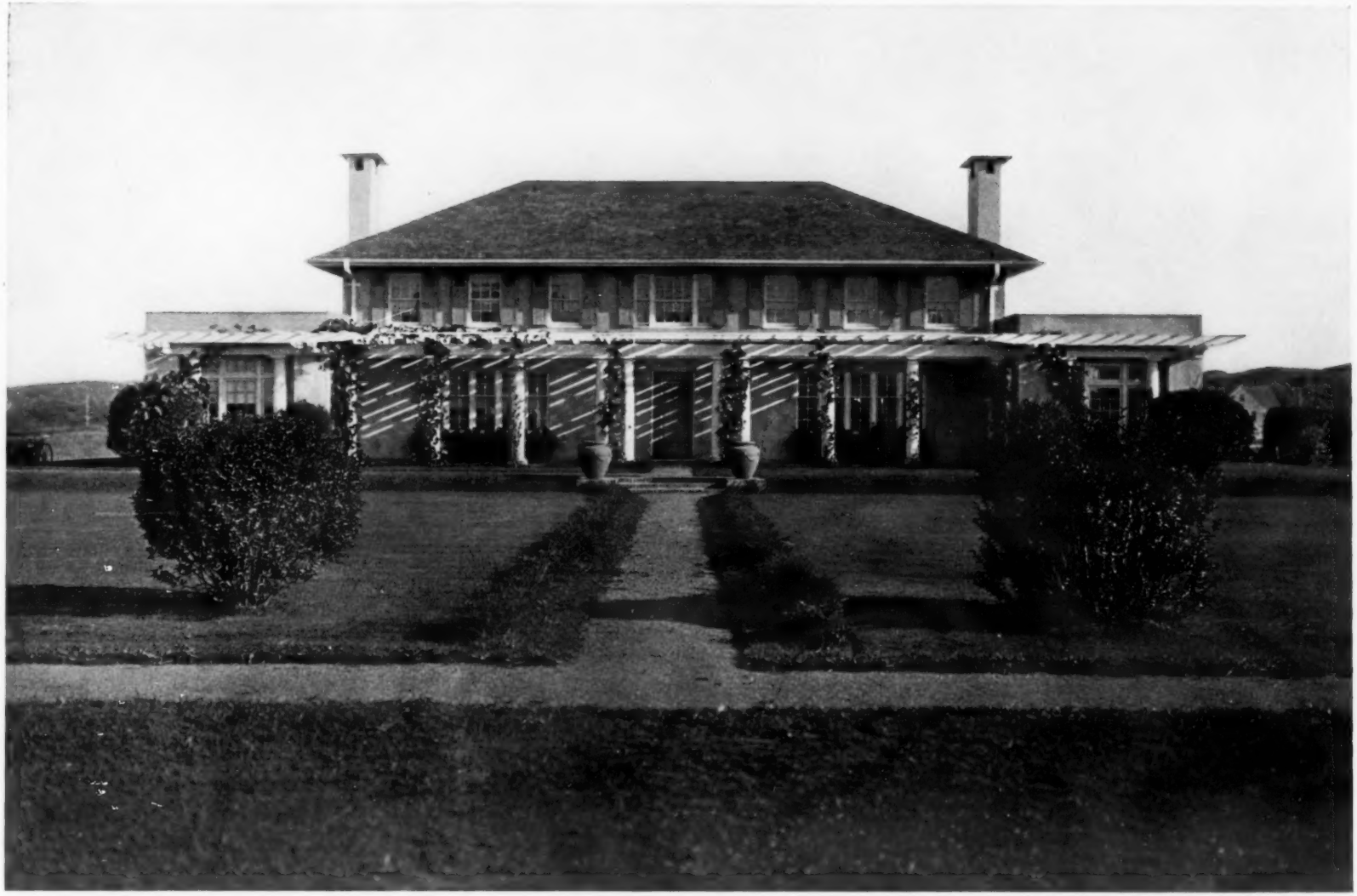

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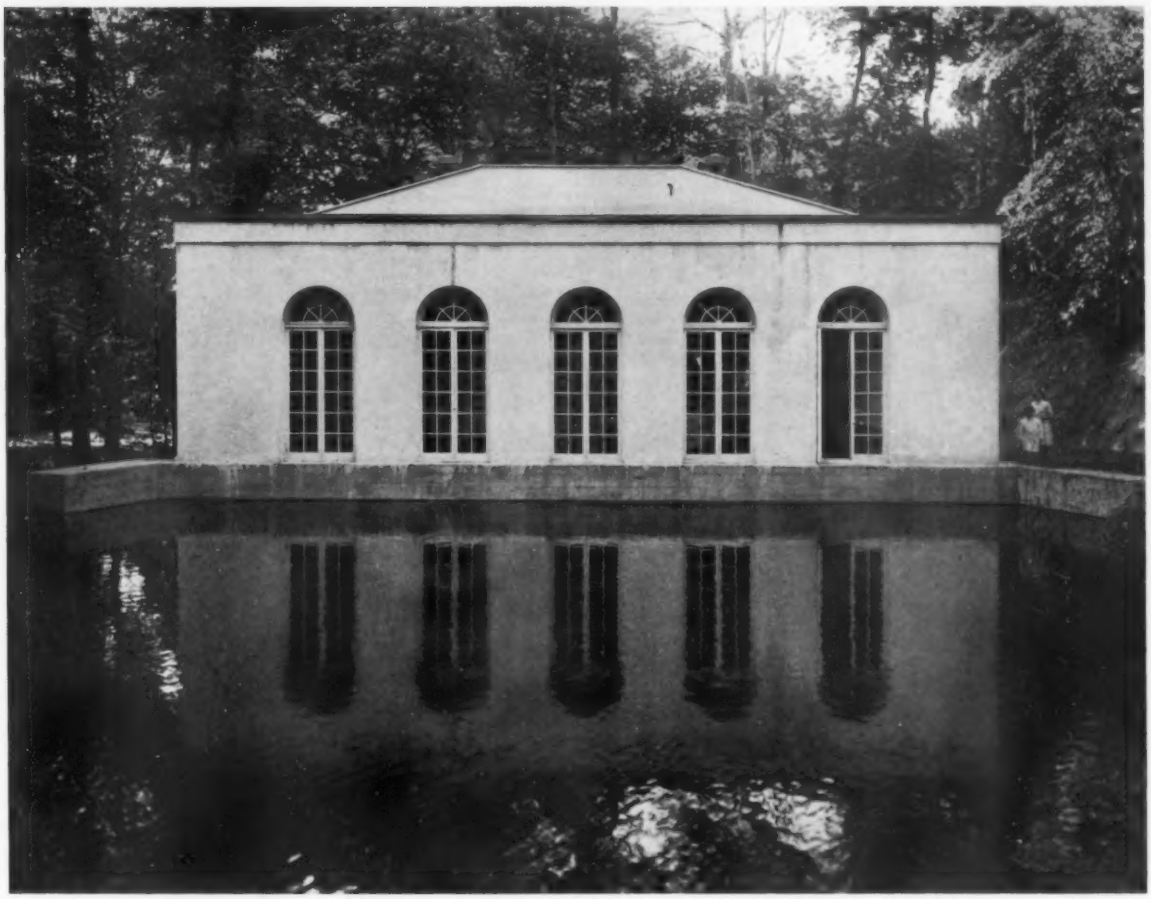

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